II. Asilidæ from Aden and its neighbourhood. By F. M. VAN DER WULP.

[Read November 2nd, 1898.]

PLATES II. AND III.

Colonel J. W. Yerbury, being desirous to increase our knowledge of the fauna of the countries bordering on the gulf of Aden, made during his residence there a rather large collection of Diptera. He has been kind enough to send me the Asilids, and has at the same time communicated to me the results of his preliminary examination, results which prove him to be by no means a tyro in dipterology.

The localities in which the Asilids have been collected are: Huswah, across Aden harbour on the sea-shore; Shaik Othman, 6 miles from Aden; Lahej, 15 miles inland from Aden; and Haithalhim, 19 miles from Aden. There were no specimens from the opposite (African) coast of the gulf of Aden. Nevertheless the collection shows a decided African character and a total want of East-Indian

forms.

The following species, belonging for the most part to genera almost exclusively African, are represented in it.

Dasypoginæ.

1. Saropogon melampygus, Löw.

Saropogon melampygus, Löw, Bemerkungen über die Asiliden, p. 10; and Systematischre Beschreibung, i, p. 90.

Several specimens of both sexes from Lahej and Shaik Othman. Löw has described only the female; his specimens were from Syria. All the females before me have the mystax yellow; even the lateral bristles which, according to Löw, are sometimes black. In one of the males the whole mystax is likewise yellow, but the other male specimens have a black mystax, often with some pale bristles in it. I see no other difference, and I think all belong to one species. Some of the females agree fully with Löw's ample description. In most specimens the TRANS. ENT. SOC. LOND. 1899.—PART I. (APRIL) 6

basal joints of the antennæ are rufous with only the third joint blackish, but sometimes the basal joints are also infuscated. The coloration of the abdomen is somewhat variable, the black picture being more or less extended. The male genitalia are swollen, shining black at the sides and with brown hairs beneath. One of the females shows at the tip of the abdomen some small black spines, which in the others are inconspicuous in the pilosity.

2. Saropogon incisuratus, n. sp. 3.

Thorax grey with black stripes; abdomen black with white incisions; mystax yellow; legs yellow; the tarsi, the hind tibiæ, and a spot on the hind femora, black; wings subhyaline.

Length 7.5 mm.

Front black, with yellow dust; face and mystax yellow; occiput dark grey with grey hairs. Antennæ brown, on the inner side somewhat lighter and more rufous, the tip and the rather distinct terminal style black; the basal joints of equal length, the third joint one and a half times as long as the basal joints together; the second joint with black bristles at the tip on the underside. Proboscis shining black; palpi black with black bristles. Ground-colour of the thorax yellowish-grey; the thoracic dorsum covered with short yellow hairs and with three broad blackish stripes, the median one divided in two by a pale line; pleuræ black, with irregular yellowish spots; prothorax on the upper side with erect yellow hairs; posterior part of the thorax with yellow bristles, which are directed towards the scutellum; scutellum brownish-grey, with a narrow whitish hind border and two pale yellow bristles; metanotum grey, on each side with a whitish spot; the bristles before the halteres yellow. Abdomen shining black; the second, third and fourth segments with a narrow white hind border; genitalia rufous (in one specimen black), with brown hairs on the underside. Coxæ black, the fore and middle ones with a yellowish spot; in the fore and middle pairs of legs the femora and tibiæ are pale yellow, the tarsi rufous-brown, lighter towards the base; in the hind pair the femora are yellow with the tip and a large spot on the upperside black, the tibiæ and tarsi black, the end of the tibiæ and the first tarsal joint often somewhat rufous; the spur at the end of the fore tibiæ minute, ending in a black spine; bristles of the fore and middle tibiæ yellow and black mixed; those of the hind tibiæ all black; bristles of the tarsi and likewise the foot-claws black. Halteres yellow. Wings (Plate II, fig. 1) greyish-hyaline, slightly infuscated at the tip; small cross-vein on the middle or a little beyond the middle of the

discal cell; fourth posterior cell narrowed towards the end, but not closed; third basal cell narrowly open at the margin of the wing.

Five male specimens from Lahej.

3. Saropogon pulverulentus, n. sp. ♂♀. (Plate II, fig. 2.)

Thorax grey; abdomen yellowish-rufous, with black lateral spots; mystax, antennæ and legs yellow; wings hyaline.

Length 12.5 mm.

Front covered with grey dust; the ocelli black; face golden yellow; mystax pale yellow; occiput grey, with whitish hairs; ocellar bristles also whitish. Antennæ vellowish-rufous, the tip of the third joint black; second joint a little longer than the first, with yellow bristles; the third longer than the two basal joints together. Proboscis black; palpi rufous with yellow hairs. Thorax black, but in well preserved specimens the thoracic dorsum thickly clothed with a clear grey dust; the shoulders and pleuræ vellow: the prothorax and the posterior part of the thorax with many long, pale yellow bristles; scutellum and metanotum yellowish-rufous; the bristles before the halteres yellow; on the hind border of the scutellum two yellow bristles crossing one another. Abdomen rufous; base of the first and second segments black; the following segments with black lateral spots, which sometimes extend along the front borders; first segment on each side with yellow bristles; male genitalia short, on the sides and beneath with long yellow hairs. Legs yellowish-rufous; the bristles of the tibiæ yellow; those of the tarsi mostly black; the spur at the end of the front tibiæ and all the foot-claws black. Halteres brown. Wings hyaline with yellow or pale veins; fourth posterior cell and third basal cell closed at the hind margin of the wing.

Several specimens of both sexes from Huswah and Shaik Othman.

This species is closely allied to Saropogon (Dasypogon) vestitus, Wied. (Aussereur. Zweifl. ii, 406.65), but it differs in its somewhat larger size, the want of yellow stripes on the thoracic dorsum and of the black tip to the hind femora, and in the brown halteres.

4. Saropogon rubriventris, n. sp. 2.

Thorax yellowish with black stripes; abdomen brownish-red; antennæ and legs rufous; mystax yellow; wings subhyaline with grey tip.

Length 11 mm.

Front black, with yellowish dust; face pale yellow; mystax yellow; occiput grey. Antennæ rufous with black tip; second joint hardly as long as the first; third joint about one and a half times as long as the two basal joints together; the second joint with some black bristles. Proboscis black, rufous at the base; palpi rufous with yellow bristles. Thorax greyish-yellow, with two black dorsal stripes and a broad, dark-brown lateral band; the hind border and the scutellum rufous; prothorax with yellowish bristles; similar bristles, directed backwards on the posterior part of the thorax; scutellum with two yellow bristles; the bristles before the halteres also yellow. Abdomen as broad as the thorax, with parallel sides, brownish-red; the first segment black, the others with a small, black, lateral spot; the second and third segments with a very narrow, whitish hind border; the terminal segments shining; laterally the basal segment with several yellow bristles. Legs yellowish-rufous; the coxæ blackish; hind femora with a brownish tip; tibiæ with some short black bristles, and others, which are longer and yellow; tarsal bristles and foot-claws black. Halteres rufous. Wings greyish-hyaline, the tip bordered with dark grey, extending from the end of the second vein to beyond the fourth posterior cell; this cell is narrowed towards the margin of the wing, but not closed; small cross-vein nearly on the middle of the discal cell.

A single female from Lahej.

This species also comes near Saropogon vestitus, Wied., and might even be identified with it, if Schiner (Verh. Zool. bot. Ges. Wien, xvi, p. 680) had not stated that in the typical specimens the fourth posterior cell is closed.

5. Leptogaster nitidus, Wied.

Leptogaster nitidus, Wied. Auss. Zweifl. i, 535; Löw, Dipt. fauna Süd Afrika's, p. 102.

A single female specimen from Lahej.

This specimen may be referred to the above species, though it differs in some respects from Löw's ample description. The second and third abdominal segments do not show the large, well limited blackish spot, mentioned by him, but all the segments are rather equally blackish brown, with a grey hind border, which becomes narrower on the terminal segments. The fore femora are not in-

fuscated at the tip, and the fore and middle tibiæ have not a brownish stripe. The wings (Plate II, fig. 3) are strongly iridescent; the third basal cell and all the posterior cells are open; the small cross-vein stands distinctly before the middle of the discal cell.

6. Rhadinus ungulinus, Löw.

Rhadinus ungulinus, Löw, Neue Beitr. zur Kenntn. der Dipteren, iv, p. 38.

Five specimens (1 3, 4 2) from Aden. The species is

common, sitting on the sand.

The basal part of the tibiæ is sometimes to a great extent rufous; in the male specimen the base of the hind femora is of the same colour. On Plate II, I give a sketch of the head in profile (fig. 4), the front leg (fig. 5) and the neuration of the wing (fig. 6).

7. Rhadinus megalonyx, Löw.

Rhadinus megalonyx, Löw, Neue Beitr. zur Kenntn. der Dipteren, iv, p. 39.

Five specimens (1 3, 4 9) from Aden; common in the same places and in company with the preceding species.

The specimens vary in size (5 to 6.5 mm.); in the male and in three of the females the mystax is white, in one of the females only is it yellow. The male, which was unknown to Löw, agrees fully with the female.

Löw has described both species from Egyptian

specimens.

PSILINUS, nov. gen.

(ψιλòs, bare.)

Belongs to the Dasypoginæ without terminal spur to the front

tibiæ and without pulvilli.

Small, slender, not hairy. Front very slightly excavated; ocelli distinct; face flattened, narrower than the eyes, with parallel sides; mystax ascending to one third of the face; eyes large, prominent. Antennæ slender; the third joint much longer than the basal joints together, pointed at the tip; terminal style distinct, elongate, twojointed. Thorax and scutellum without bristles; the abdomen long and slender; the anal segment (?) with some small spines. Legs moderately long, the hind pair scarcely longer and somewhat more robust than the others; first tarsal joint as long as the two or three following joints together; foot-claws long; pulvilli absent. In the wings all the posterior cells are open and not constricted; the fourth posterior cell issues from the second basal cell; the third basal cell is closed at the margin of the wing.

This genus is related to *Rhadinus*, but differs in the mystax, which does not ascend to the antennæ; the total want of bristles on the thorax and scutellum; the less excavated front, the more elongate antennæ, and the not closed fourth posterior cell. From *Leptogaster* it differs in the hind legs, which are less elongate and of which the femora and tibiæ are not club-shaped, the tibiæ being gradually and only slightly enlarged towards the tip.

8. Psilinus cinerascens, n. sp. 9.

(Plate II, fig. 7.)

Grey; antennæ, incisions and terminal segment of the abdomen, and legs, black.

Length 8 mm.

Head (figs. 8 and 9) greyish-white; mystax yellow; beard whitish. Antennæ, proboscis and palpi black. Thorax and scutellum grey; thoracic dorsum somewhat brownish-rufous pollinose, with two blackish stripes, which do not reach the hind border, laterally on each side two black spots; with the exception of a row of fine, yellow, erect hairs before the halteres, the whole thorax is bare. Abdomen cinereous, with blackish incisions; anal segment a little shorter than the preceding segments, shining black, with four or five very small spines. Legs black, the base of the tibiæ slightly rufous; the front coxæ, the femora on the underside, the tibiæ, and tarsi with whitish hairs and bristles. Halteres yellow, proportionately large. Wings greyish hyaline, with black veins; small cross-vein on the middle of the discal cell.

A single female specimen from Aden.

9. Sisyrnodytes brevis, Macq.

Acnephalum breve, Macq., Dipt. exot. i, 2, p. 52, Tab. 4, f. 3.

Sisyrnodytes floccus, Löw, Neue Beitr. zur Kenntn. der Dipteren, iv, p. 40.

Dasypogon contrarius, Walk., Entomologist, v, p. 257.

A single female specimen from Aden.

I have no doubt that the above-quoted descriptions are all founded on the same species. Macquart's specimens were from the Cape, those of Löw from Egypt, and those of Walker from Mount Sinai.

The genus Sisyrnodytes, Löw, differs from nearly all other Asilids by having the costal vein not prolonged round the whole circumference of the wing, but terminated a little beyond the end of the upper branch of the third vein (see Pl. II, fig. 10). Dasythrix is the only genus among the Laphrine that shows this peculiarity.

10. Acnephalum futile, n. sp. ♂♀.

Black; thorax with white stripes and spots; abdominal segments with white front borders; tibiæ and base of the tarsi rufous.

Length 5-6 mm.

Head greyish; mystax white or whitish yellow, ascending to the antennæ; beard, and hairs of the occiput white. Antennæ black; the basal joints with whitish hairs. Proboscis shining black. Thorax, scutellum and abdomen shining black; on the thoracic dorsum three longitudinal stripes, the sides, and some lateral transverse stripes, whitish; pleuræ with a large whitish spot beneath the shoulders and some others further behind; the thorax is clothed with short whitish hairs and has posteriorly many bristles of the same colour; the bristles before the halteres yellowish-white; the abdominal segments have white front borders; on each side of the first segment is a tuft of yellowish bristles; male genitalia small, somewhat pointed, rufous, with yellow hairs; anal segment of the female truncate. Legs rather robust; coxe and femora black; the tip of the femora, the tibiæ and the first tarsal joint rufous, the following joints of the tarsi gradually darker; the hairs and bristles of the legs, even those of the tarsi, yellowish-white. Halteres pale yellow. Wings (Pl. X, fig. 11) hyaline, iridescent, with black veins; all the posterior cells open, the third slightly enlarged and the fourth narrowed towards the margin of the wing; small cross-vein on the middle of the discal cell; third basal cell closed at the margin.

A pair in coitu, from Aden.

This species is closely allied to Dasypogon (Acnephalum) andrenoides, Wied. (Auss. Zweifl. i, p. 403), but differs in its smaller size, black antennæ, abdomen not punctured nor reddish at the sides, and its hyaline wings without brownish picture.

11. Holcocephala punctulata, n. sp. 3.

Thorax cinereous with black points; abdomen and legs rufous; antennæ and tarsi black; wings brown.

Length 5 mm.

Head (Pl. II, figs. 12 and 13) grey; front and face nearly as broad as the eyes; ocellar tubercle and a spot above the oral margin, black; mystax yellowish, limited to the oral margin. Antennæ black; third joint cylindrical, much longer than the basal joints; terminal style as thick and nearly as long as the third joint. The short proboscis and palpi black. Thorax and scutellum cinereous; thoracic dorsum with hardly any indication of dark stripes, but with six distinct, slightly excavated, shining black points; the thorax is strongly convex and has a very short, yellow pilosity, but no bristles; scutellum likewise without bristles. Abdomen elongate, subcylindrical, rufous, with erect yellow hairs; genitalia rather small. Legs rufous; tip of the femora and tibiæ, and the whole tarsi, black; the tibiæ and the underside of the femora with whitish bristly hairs; first joint of the hind tarsi slightly enlarged, clothed on the underside with a compact, short, golden-yellow pilosity. Halteres rufous. Wings (fig. 14) blackish-brown, more obscure at the base and along the costa; auxiliary vein elongate, terminating in the costa at a short distance from the end of the first vein; second vein straight; all the posterior cells open; the fourth posterior cell unusually broad; small cross-vein before the middle of the discal cell; third basal cell narrowly open at the margin of the wing.

Two male specimens from Aden.

12. Stichopogon inconstans, Wied.

Thereva inconstans, Wied. Auss. Zweifl. i, p. 558.

A single female specimen from Haithalhim.

Wiedemann wrongly placed this species in the genus *Thereva*, but before the publication of his book discovered his error, as in the index (p. 596) he brings it into *Dasypogon*. His description is quite applicable to the specimen before me; the only ground for doubt as to the correctness of this identification being his reference regarding the neuration of the wings to a figure in Meigen's System. Beschr. vol. ii, Tabl. 15, f. 8, repre-

senting a *Thereva*-species. In this figure the fourth posterior cell is closed at the margin of the wing, whereas in the specimen before me (see my figure, Pl. III, fig. 1) it is open.

Wiedemann's description was based on Nubian and

Egyptian specimens.

13. Habropogon senilis, n. sp. 3.

Cinereous; thorax with brownish stripes; abdomen, antennæ and legs rufous; wings hyaline.

Length 8 mm.

Head broader than high; front and face slightly narrower than the eyes; front not excavated; face pale yellow, flattened; mystax yellowish, very compact, but confined to the oral margin. Antennæ rufous, as long as the head; basal joints with some pale bristles; third joint elliptical, as long as the basal joints together; terminal style very short, but distinct. Proboscis black, pointed towards the tip; palpi rufous, with yellow hairs. Thorax, scutellum and metanotum cinereous; thoracic dorsum with three broad brown stripes; the median stripe anteriorly divided by a lighter line; posterior part of the thorax with pale yellow bristly hairs; a row of similar hairs at the hind border of the scutellum; the hairs before the halteres likewise pale yellow. Abdomen cylindrical, rufous, without hairs and bristles, but in well preserved specimens with some greyish dust, which, however, does not much modify the ground-colour; the front border of the first and sometimes also of the second segment blackish; genitalia little developed. Legs rufous; coxæ cinereous; a streak on the upperside of the hind femora, the tip of the hind tibiæ, and the hind tarsi, brown; the legs are rather robust, the hind tibiæ very slightly enlarged towards the tip; the first tarsal joint of the fore and middle pair is not longer than the second joint; in the hind tarsi it is somewhat enlarged and as long as the two or three following joints together; the legs have a whitish pubescence and weak yellow bristles; on the underside of the hind femora the bristles are shorter; the foot-claws are black. Halteres pale yellow. Wings hyaline; the veins at the base and near the costa rufous; all the posterior cells open; third basal cell narrowed towards the margin of the wing; small cross-vein a little before the middle of the discal cell.

Three male specimens from Aden.

LAPHRINÆ.

14. Hoplistomera caliginosa, n. sp. ♀.

Brownish-black; abdomen with yellow or white hind borders of the segments; tibiæ and tarsi rufous; wings slightly infuscated at the tip.

Length 13-14.5 mm.

Face grey, thickly clothed with whitish hairs; mystax pale vellow, hardly reaching the middle of the face; front and occiput grey, with whitish bristles; beard white. Antennæ as long as the head; the basal joints brownish-rufous; third joint black, lighter towards the base, as long as the basal joints together. Proboscis shining black; palpi black, with whitish hairs. Thoracic dorsum brown, but on account of a short white pilosity appearing cinereous; the shoulders, the sides and the pleuræ whitish; a brown stripe from the shoulders to the root of the wings; scutellum cinereous; the bristles before the halteres are whitish, and there are no other bristles on the thorax or scutellum. Abdomen conical, convex, brownishblack; the hind borders of all the segments are white, in some lights showing yellow or brownish-yellow reflections; on the sides of each segment are some very short, yellow bristles; ovipositor shorter than the preceding segment, partly shining rufous, with yellow hairs. Legs robust, the femora, especially the hind pair. incrassated; fore coxæ densely white-haired; femora black; in the fore and middle pair the underside and tip, in the hind pair the base and tip are rufous; tibiæ and tarsi rufous; all this coloration more or less altered by a short white pilosity; bristles of the legs, including the tarsi, yellowish; some short black spines on the underside of the hind femora. Halteres pale yellow. Wings (Pl. III, fig. 2) grevish-hyaline, the tip and the terminal portion of the hind margin slightly infuscated; small cross-vein at a short distance from the base of the discal cell.

Two female specimens, from Haithalhim and Lahej.

15. Hoplistomera leucocoma, n. sp. \mathcal{F} \mathcal{F} .

Greyish-cinereous ; antennæ and legs rufous ; wings hyaline. Length $9.5{\text -}11~\mathrm{mm}$.

Front and occiput grey; face densely clothed with white hairs; the similarly coloured mystax densely covering the oral margin; beard and the hairs on the occiput likewise white. Antennæ yellowish-rufous; the second joint with some long, pale bristles;

third joint as long as the preceding joints together, attenuated towards the base. Proboscis shining black; palpi rufous. Thorax and scutellum cinereous, with a short whitish pilosity; the bristles before the halteres white. Abdomen in the male cinereous, at the sides whitish; in some lights the front borders of the segmentsbecome darker and the hind borders lighter; male genitalia rufous, with yellow hairs. The abdomen of the female has a more rufous ground-colour, which, however, in well-preserved specimens is very inconspicuous owing to the whitish pilosity; sometimes the segments appear with a brownish-rufous front border and a white hind border; the ovipositor is very small. In both sexes some yellow bristles are present on the sides of the first segment. Legs yellowishrufous; in the male the femora on the upperside and the apical half of the hind tibiæ are brown; hind femora slightly incrassated, without spines on the underside, but with weak vellow bristles such as are generally to be found all over the legs; foot-claws black. Halteres yellow. Wings hyaline; neuration as in the preceding. species.

Five specimens (2 3, 3 2) from Shaik Othman.

16. Dasythrix ruficornis, n. sp. ♂♀.

Grey; clothed with white and greyish hairs; abdominal segments with blackish hind borders; antennæ rufous; legs black.

Length 11.5 mm.

Head wholly and densely clothed with white hairs, which are longer and more bristly towards the oral margin. Autennæ vellowish-rufous; first joint beneath with long whitish hairs; second joint small, often somewhat infuscated; third joint as long as the first, elliptical; the very short terminal style black. Proboscis shining black; palpi rufous, with white bristles. Ground-colour of the thorax and scutellum black, but on account of the dense covering of whitish hairs they have a grey aspect; on the hind margin of the latter these hairs become long erect bristles. Abdomen conical, blackish-brown, clothed on the sides and front borders of the segments with whitish hairs, so that large spots or cross-bands of the dark colour remain on the hind borders; the male genitalia and the ovipositor of the female small and covered with whitish hairs. Legs black, with white hairs and bristles, which are present also on the tarsi; in some specimens the base of the tibiæ is slightly rufous; foot-claws black, with a rufous base; pulvilli pale yellow. Halteres yellowish-rufous. Wings (Pl. III, fig. 3) hyaline with a slight yellowish-grey tinge and with all the veins black except the auxiliary

vein, which is rufous; the costal vein is not prolonged round the hind margin of the wing, but terminates just beyond the upper branch of the third vein; the first basal cell and the first posterior cell are very narrow; the latter is closed near the margin of the wing; the second and third posterior cells are imperfect, as the veins separating them do not reach the margin; the small cross-vein stands upon the first third part of the discal cell.

Several specimens of both sexes, from Aden and Shaik Othman.

This species seems to be closely allied to *D. brachyptera*, Löw (Dipt. faun. S. Afrika's, p. 126), but I cannot unite them, the hairs and bristles in the Aden species being without exception whitish, whereas in *D. brachyptera* black bristles are mingled with the white.

ASILINÆ.

17. Promachus rectangularis, Löw.

Promachus rectangularis, Löw, Neue Beitr. zur Kenntn. der Dipteren, ii, p. 5.

* ? Syn. Erax cinctipes, Walk., Entomologist, v, p. 258.

Four specimens (2 $\mathcal{J},$ 2 $\mathcal{P})$ from Aden, Lahej, Shaik Othman and Haithalhim.

They agree fully with Löw's description. The synonymy of *Erax cinctipes*, Walk. was already stated by Löw (Zeitschr. f. d. ges. Naturwiss. xlii, p. 108). I give a sketch of the wing, Pl. III, fig. 4.

Löw's specimens were from Massawa, those of Walker

from Wadi Ferran (in Arabia).

18. Philodicus gracilis, n. sp. ♂♀.

Cinereous; thorax with brown stripes; abdomen with black dorsal spots; tibiæ rufous; wings hyaline with the tip grey.

Length 19-22 mm.

Head whitish; face clothed with white hairs; mystax white or pale yellow, confined to the oral margin, sometimes with one or two black bristles at the sides; beard snow-white; occiput grey with

^{*} Erax cinctipes is not amongst those types of Walker which are preserved in the British Museum Collection; the type specimen of E. cinicolor is a Promachus and according to Löw is identical with P. ruppelli Löw. The two species are very near together and may possibly be identical.—J. W. Yerbury.

white hairs and bristles. Antennæ short; first and second joints brownish-rufous, with white and black hairs; third joint blackish, elliptical, shorter than the first joint. Proboscis black; palpi rufous with whitish hairs. Thorax cinereous; the usual brown picture very conspicuous; the middle band widening to the front and divided by a clear median stripe; the lateral bands interrupted and forming a row of three spots; thoracic dorsum with very short, blackish hairs, posteriorly with several long black bristles; similar bristles at the sides; on the lower part of the prothorax long whitish hairs; scutellum cinereous, on the hind margin with two long, usually black but sometimes yellow bristles (in one of the specimens the right bristle is black, the left one yellowish); the bristles before the halteres whitish. Abdomen elongate, attenuated towards the apex, cinereous, each segment with a large blackish dorsal spot; in the male the eighth segment wholly black, shorter than the preceding; the genitalia small, ovate, with whitish hairs; in the female the eighth segment shining, black or dark rufous, as long as the preceding; the ovipositor short, black, with some very short spines on each side; in both sexes the first and second abdominal segments have whitish bristles towards the sides. Legs slender; coxæ grey; femora blackish, the fore and middle ones rufous on the underside; tibiæ yellowish-rufous; tarsi brown; but all this coloration more or less modified by a white pilosity; fore tibiæ towards the apex with long whitish hairs; bristles of the legs generally white, but some of them black; those of the tarsi black; foot-claws black; pulvilli orange-yellow, Halteres yellowish-rufous. Wings (Pl. III, fig. 5) much shorter than the abdomen, hyaline, with the tip greyish; veins black; small cross-vein on the middle or a little before the middle of the discal cell, which is proportionately narrow.

Some specimens of both sexes, from Lahej and Haithalhim.

Fairly common. I have examined six specimens (3 β and 3 φ). One of them was captured preying on a butterfly (*Lycana gaika*).

19. Apoclea femoralis, Wied.

Asilus femoralis, Wied. Aussereur. Zweifl. i, p. 466. Several specimens of both sexes, from Huswah, Shaik Othman and Lahej. One of them was captured preying on a butterfly (Synchloe glauconome).

Wiedemann's description is quite applicable, but as it-

was based only on the male sex and the species of Apoclea are difficult to distinguish, I give here a full description.

Antennæ yellowish-rufous; the first and second joints with whitish hairs; third joint shorter than the first, pointed towards the tip. Mystax and likewise the hairs on the face, front, and occiput white. Proboscis black; palpi rufous with white hairs. Thorax, scutellum and abdomen grevish-cinereous; the thorax with more or less distinct darker stripes and spots; the very short hairs and the bristles on the sides and before the scutellum whitish; scutellum with erect whitish hairs and a row of whitish bristles at its hind margin. Abdomen often with an indication of black incisions: in the male there are some whitish bristles on the sides of each segment; in the female these only exist on the first and second segments; male genitalia ovate, usually chesnut-brown; in the female the eighth segment is cylindrical, twice as long as the preceding segment, shining black or piceous; the ovipositor black, with a row of short spines. Legs yellowish-rufous; on the upperside of the fore and middle femora a blackish stripe; the hind femora wholly black; the tarsi and often also the tips of the tibiæ infuscated; the coloration of the legs, however, is not conspicuous. the legs being covered with white hairs, which gives them a greyish aspect; the bristles of the legs, even those of the tarsi, are likewise white. Halteres yellowish-rufous. Wings (Pl. III, fig. 6) hyaline; the veins blackish, except those near the costa, which are rufous; the upper branch of the third vein at its base with a short recurrent stump, which, however, is wanting in some specimens; the small cross-vein is placed at, or a little before, the middle of the discal cell.

Length 17-23 mm.

Wiedemann's specimens were from Egypt.

20. Apoclea heteroclita, n. sp. 3.

Cincreous; thorax with black stripes; abdomen with blackish spots; legs partly rufous; wings hyaline, with grey apex; first posterior cell open.

Length 16 mm.

Head cinereous; clothed with yellowish hairs; mystax yellowish, confined to the oral margin; beard white; occiput with whitish hairs and with a row of black bristles above. Antennæ brownishrufous; the basal joints with some black bristles; the third joint shorter than the first, pointed towards the tip. Proboscis piceous. Thorax, scutellum and abdomen cinereous; the blackish median band of the thorax broad, indistinctly divided by a lighter line;

laterally with blackish spots, one before and another behind the transverse suture; the thoracic dorsum with short black hairs, posteriorly and on each side before the root of the wings with several black bristles. Pleuræ grey; scutellum with yellowish hairs; its hind margin with a row of yellowish bristles. Abdomen elongate, narrower than the thorax, each segment with two blackishbrown spots, which in some lights appear to be united, forming dark front borders on the segments; laterally there are some vellowish bristles; on the eighth segment these bristles are black; genitalia ovate, piceous. Coxæ grevish-cinereous; femora blackish above, rufous at the underside; tibiæ rufous with brownish tip; tarsi brownish; the legs are clothed with short, whitish hairs, on the fore coxe and on the underside of the fore femora these hairs become longer and more bristly; tibiæ with scattered, mostly black bristles; those on the innerside of the fore tibiæ are yellowish; the bristles of the tarsi black, some only on the fore tarsi pale; foot-claws black; pulvilli yellow. Halteres yellow. Wings (Pl. III, fig. 7) hyaline, with black veins; the upperbranch of the third vein has a short recurrent stump at the base; the first posterior cell is slightly narrowed at the tip, but not closed; the small cross-vein is situated a little before the middle of the discal cell.

A single male specimen from Shaik Othman.

21. Protophanes costalis, n. sp. 3.

Cinereous; thorax with a black stripe; abdomen with black dorsal spots; mystax white; antennæ and legs black; wings with a narrow brown costal border.

Length 12.5 mm.

Head (Pl. III, fig. 8) broader than the thorax; face narrow, not prominent, wholly covered by the large white mystax, in the upper part of which, under the antennæ, some black bristles are mixed; front black, with black bristles, those on the vertex rather long, curved forward; beard white. Antennæ black; the basal joints with whitish bristles beneath and some black ones above; third joint as long as the basal joints together, but distinctly narrower, and gradually passing into the rather short and thick arista. Proboscis black, pointed towards the tip. Thorax cinereous, with a very distinct black dorsal stripe; the usual lateral stripes inconspicuous; thoracic dorsum with short black hairs and along the median stripe with black bristles, which posteriorly are intermixed with whitish hairs; pleuræ grey; the bristly hairs before the halteres, whitish.

Scutellum cinereous, densely clothed with erect whitish bristles. Abdomen cinercous, elongate, slightly narrowed behind; each segment with a blackish spot on the front border; a row of erect whitish bristles on the hind margin of the first segment and a row of similar bristles, directed backwards, on the front margin of the second segment; at the sides these bristles are concentrated into a tuft; the tip of the second and third segments with two or three whitish bristles at the sides; genitalia (fig. 9) black. Legs black, but appearing somewhat greyish on account of a short, dense, white pilosity; knees and the base of the tibiæ rufous-piceous; most of the bristles on the femora and tibiæ are whitish, but at the tip of the femora and on the front-side of the fore tibiæ there are some black ones; the bristles of the tarsi are as a rule black, some only on the fore tarsi being white; foot-claws black; pulvilli yellow. Halteres yellow. Wings (fig. 10) greyish-hyaline; the costa, from the middle to the tip, with a narrow brown border; veins black; small crossvein a little beyond the middle of the discal cell.

Two male specimens from Aden.

22. Itamus sodalis, n. sp. ♂♀.

Thorax cinereous with black stripes; abdomen black with grey hind borders of the segments; antennæ black; legs rufous; wings brownish-hyaline.

Length 15-18 mm.

Head cinereous; face with white reflections, slightly narrowed towards the antennæ; mystax yellowish-white, not ascending above the oral margin; beard white; occiput with whitish hair, and with a row of black bristles above. Antennæ brownish-black; the basal joints with some black bristles; third joint as long as the first, pointed towards the tip. Proboscis and palpi black, the palpi with pale hairs. Thorax and scutellum cinereous; thoracic dorsum with distinct, broad, black stripes, the median stripe double, the lateral ones interrupted on the transverse suture; pleuræ grey; some strong black bristles on the posterior part of the thorax and laterally behind the suture; the bristly hairs before the halteres yellowish; scutellum without hairs or bristles. Abdomen velvety black, without any metallic reflection; the lateral and hind borders of the segments and the whole ventral surface grey; yellowish bristly hairs situated laterally on the first and second segments; the male genitalia (Pl. III, fig. 11) shining black, proportionally large, the forceps with white hairs beneath; ovipositor (fig. 12) of the female elongate, black, formed by the sixth, seventh and eighth segments.

rufous; the tips of the femora and tibiæ, and the second and following joints of the tarsi, more or less brownish; the bristles of the tarsi and some scattered bristles on the femora and tibiæ, black. Halteres yellow. Wings (fig. 13) slightly brownish, more obscure at the tip and hind margin, with the central parts of the cells sometimes clearer; small cross-vein placed distinctly beyond the middle of the discal cell.

A single pair, from Haithalhim and Lahej.

23. Ommatius tenellus, n. sp. 3 2.

Cinereous; antennæ black; legs rufous; the tip of the femora and tibiæ, and the tarsi black; wings hyaline.

Length 7 mm.

Head (Pl. III., fig. 14) broader than the thorax; face white, narrow; mystax whitish, in the males with some long bristly hairs of the same colour above it (in the single female these hairs are blackish). Front and occiput grey; the ocellar tubercle black. Antennæ black; third joint ovate; arista long, with a row of rather long hairs on the underside. Proboscis black. Thorax and scutellum cinereous; thoracic dorsum with distinct brown or blackish stripes; the median stripe double; the lateral ones interrupted on the transverse suture, thus forming two spots; pleuræ and metanotum grey; on the posterior part of the thorax and on the sides behind the suture several whitish bristles; the bristles before the halteres white. Abdomen somewhat flattened, with parallel sides; cinereous with white incisions; male genitalia small, dark rufous, laterally with black hairs; ovipositor of the female very short. Legs yellowishrufous; the coxe grey; the tips of the femora and tibiæ, to a more or less extent, and the tarsi, with the exception of the basal joint, brownish or black; some weak yellowish hairs and bristles on the tibiæ and on the underside of the femora; bristles of the tarsi black. Halteres pale yellow. Wings (fig. 15) pure hyaline; small crossvein on the middle or a little beyond the middle of the discal cell. In one of the specimens the space between the costal vein and the tirst vein is brownish, and the small cross-vein stands a little before the middle of the discal cell: but I see no other difference.

Fairly common. Several specimens from Haithalhim and Lahej.

In its small size and the coloration of the legs this species is allied to the East-Indian O. argyrochirus,

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v. d. W. and suffusus, v. d. W. From the first it differs in the total want of silvery pilosity on the fore legs of the male; and from O. suffusus in its hyaline wings. O. flavipes, Löw, from South Africa, certainly belongs to the same group, but it has yellow legs without brown tips to the femora and tibiae.

PLATES II. AND III.

[See Explanations facing the Plates.]